NOE PE 2 4 2014 &

Docket No. VPI/95-09 DIV

IE UNITED STATES PATENT AND TRADEMARK OFFICE

PATENT APPLICATION

Applicants : David M. Armistead, et al.

Application No.: 09/431,469 Confirmation No.: 8756

Filed: November 1, 1999

For : MOLECULES COMPRISING A CALCINEURIN-LIKE

BINDING POCKET AND ENCODED DATA STORAGE MEDIUM CAPABLE OF GRAPHICALLY DISPLAYING

THEM

Group Art Unit: 1631

Examiner : Marjorie A. Moran

New York, New York February 24, 2004

Hon. Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Express Mail Label Number EV133110633US.

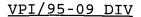
Date of Deposit February 24, 2004

I hereby certify that this paper/fee is being deposited with the United States Postal Service "EXPRESS MAIL POST OFFICE TO ADDRESSEE" service under 37 C.F.R. 1.10 on the date indicated above and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Enclosures:

- (1) Transmittal Letter (in dupl.);
- (2) Supplemental Information Disclosure Statement;
- (3) Form PTO-1449;
- (4) Check for \$180.00; and
- (5) Postcard.





IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

TRANSMITTAL LETTER FOR <u>SECOND_SUPPLEMENTAL_INFORMATION_DISCLOSURE_STATEMENT</u>

Sir:

Transmitted herewith are a Supplemental Information Disclosure Statement and Form PTO-1449 (in duplicate) pertaining to the above-identified application. This Statement is submitted more than three months from the application filing date and after the mailing date of the first Office Action on the merits, but before the mailing date of either a final action under 37 C.F.R. § 1.113, or a notice of allowance under 37 C.F.R. § 1.311.

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In accordance with 37 C.F.R. § 1.97, the fee of \$180, as set forth in 37 C.F.R. § 1.17(p), is required and a check for said amount is included herewith.

The Director is also hereby authorized to charge payment of any additional fees required in connection with the accompanying Supplemental Information Disclosure Statement, or credit any overpayment, to Deposit Account No. 06-1075. A duplicate copy of this letter is transmitted herewith.

Respectfully submitted,

James F. Haley, Jr. (Reg. No. 27,794)

Li Su (Reg. No. 45,141)

Attorneys for Applicants

Lawrence M. Brown (Reg. No. 52,660)

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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c/o FISH & NEAVE

1251 Avenue of the Americas

New York, New York 10020

Tel.:(212) 596-9000

Fax: (212) 596-9090

SERIAL NO.

ATTY, DOCKET NO.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE VPI/95-09 DIV 09/431,469 APPLICANTS SECOND SUPPLEMENTAL INFORMATION DISCLOSURE David M. Armistead et al. STATEMENT BY APPLICANT FILING DATE **GROUP** FEB 2 4 2004 November 1, 1999 1631 **U.S. PATENT DOCUMENTS** FILING DATE EXAMINER NAME **CLASS SUBCLASS** DOCUMENT NUMBER DATE INITIAL APPROPRIATE 5/23/89 Carter 530 363 8/20/87 4,833,233 6/18/91 Cramer, III 364 496 8/26/88 5,025,388 5,331,573 7/19/94 Balaji 364 496 12/14/90 5,353,236 10/4/94 Subbiah 364 499 4/23/92 FOREIGN PATENT DOCUMENTS TRANSLATION **EXAMINER CLASS SUBCLASS** DOCUMENT NUMBER DATE COUNTRY INITIAL YES NO WO94/25860 11/10/94 PCT G01N 24/00 OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) **EXAMINER** INITIAL Andrus, M.B. and Schreiber, S.L., "Structure-Based Design of an Acyclic Ligand That Bridges FKBP12 and Calcineurin" J. Am. Chem. Soc., 115, pp. 10420-10421 (1993). Barford, D. and Keller, J.C., "Co-crystallization of the Catalytic Subunit of the Serine/Threonine Specific Protein Phosphatase 1 from Human in Complex with Microcystin LR", J. Mol. Biol., 235, pp. 763-766 Bierer, B.E. et al., "Cyclosporin A and FK506: Molecular Mechanisms of Immunosuppression and Probes for Transplantation Biology" Curr. Opinion in Immunology, 5, pp. 763-773 (1993). Caffrey, M.V. et al. "Synthesis And Evaluation Of Dual Domain Macrocyclic FKBP12 Ligands" Bioorg. Med. Chem. Lett., 4, pp. 2507-2510 (November, 1994). Campbell. I.D. and Dwek, R.A., "Diffraction" in Biological Spectroscopy, The Benjamin/Cummings Publishing Company, Menlo Park, CA, pp. 299-326 (1984). Griffith, J.P. et al., "X-Ray Structure of Calcineurin Inhibited by the Immunophilin-Immunosuppressant FKBP12-FK506 Complex", Cell, 82, pp. 507-522 (1995) Guerini, D. and Klee, C.B., "Cloning of Human Calcineurin A: Evidence for Two Isozymes and Identification of a Polyproline Structural Domain", Proc. Natl. Acad. Sci. USA, 86, pp. 9183-9187 (1989) Holt, D.A. et al., "Design, Synthesis, and Kinetic Evaluation of High-Affinity FKBP Ligands and the X-ray Crystal Structures of Their Complexes with FKBP12" J. Am. Chem. Soc., 115, pp. 9925-9938 (1993).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not conformance and not considered. Include copy of this form with next communication to applicant.

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FORM PTO-1	449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. VPI/95-09 DIV	SERIAL NO. 09/431,469	
SECOND SURPLEMENTAL INFORMATION DISCLOSURE CENTREMENT BY APPLICANT FEB 24 2004 5		APPLICANTS David M. Armistead et al.		
		FILING DATE November 1, 1999	GROUP 1631	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)				
EXAMINE POST				
	Hubbard, M.J. and Klee, C.B., "Functional Domain Structure of Calcineurin A: Mapping by Limited Proteolysis", <u>Biochemistry</u> , 28, pp. 1868-1874 (1989)			
	Kajihara, A. et al., "Protein Modelling Using a Chimera Reference Protein Derived From Exons" <u>Protein Eng.</u> , 6, pp. 615-620 (1993).			
	Kissinger, C.R. et al., "Crystal Structures of Human Calcineurin and the Human FKBP12-FK506-Calcineurin Complex", Nature, 378, pp. 641-644 (1995)			
	Kunz, J. and Hall, M.N. "Cyclosporin A, FK506 and Rapamycin: More Than Just Immunosuppression" <u>TIBS</u> , 18, pp. 334-338 (1993).			
	Sharma, R.K. and Wang, J.H., "Calmodulin and Ca ²⁺ -Dependent Phosphorylation and Dephosphorylation of 63-kDa Subunit-Containing Bovine Brain Calmodulin-Stimulated Cyclic Nucleotide Phosphodiesterase Isozyme" <u>J. Biol. Chem.</u> , 261, pp. 1322-1328 (1986).			
	Sträter, N. et al., "Crystal Structure of a Purple Acid Phosphatase Containing a Dinuclear Fe(III)-Zn(II) Active Site", Science, 268, pp. 1489-1492 (1995)			
	Uhlin, U. et al., "Crystallization and Crystallographic Investigations of Ribonucleotide Reductase Protein R1 from <i>Escherichia coli</i> " FEBS Lett., 336, pp. 148-152 (1993).			
	Villafranca, J.E. et al., "Protein Serine/Threonine Phosphatases", Current Opinion in Biotech., 7, pp. 387-402 (1996)			
	Wilson, K.P. et al. "Comparative X-ray Structures of the Major Binding Protein for the Immunosuppressant FK506 (Tacrolimus) in Unliganded Form and in Complex with FK506 and Rapamycin" Acta Cryst., D51, pp. 511-521 (July, 1995).			
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Commissioner for Patents New York, New York P.O. Box 1450 February 24, 2004

Alexandria, VA 22313-1450

SECOND SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT

Sir:

Pursuant to 37 C.F.R. §§ 1.56 and 1.97(c), applicants, through their attorney, make of record the following documents*:

United States Patents

Inventor	Serial No.	<u> Issue Date</u>
Carter	4,833,233	May 23, 1989
Cramer III	5,025,388	June 18, 1991
Balaji	5,331,573	July 19, 1994
Subbiah	5,353,236	October 4, 1994

^{*} Pursuant to 37 C.F.R. § 1.98(d), the documents cited herein are not enclosed because they were submitted with applicants' May 22, 1996 and February 20, 1997 Information Disclosure Statements in United States application Serial No. 08/512,815 (now United States patent 5,978,740), from which the present application claims priority under 35 U.S.C. § 120. Each of the cited documents is listed in the enclosed Form PTO-1449. Applicants will provide copies of these documents, upon the request of the Examiner.